periments have shown that the due performance of the vital functions of digestion, of circulation, and of secretion, requires the presence of an agency, derived from different parts of the brain and spinal marrow, and regulating the order and combinations of the actions of the organs which are to perform those functions. The same influence, for example, which increases the power of secretion in any particular gland, is found to increase, at the same time, the action of those blood vessels which supply that gland with the materials for secretion; and conversely, the increased action of the blood vessels is accompanied by an increased activity of the secreting organ. Experience also shows that when the influence of the brain and spinal marrow is intercepted, although the afflux of blood may, for a time, continue, yet the secretion ceases, and all the functions dependent upon secretion, such as digestion, cease likewise. Thus, the nervous power combines together different operations, adjusts their respective degrees, and regulates their succession, so as to ensure that perfect harmony which is essential to the attainment of the objects of the vital functions; and thus, not only the muscular power which resides in the vital organs, but also the organic affinities which produce secretion, and all those unknown causes which effect the nutrition, development, and growth of each part, are placed under the control of the nervous power.*

Although we are entirely ignorant of the nature of the nervous power, we know that, when employed in the vital functions, it acts through the medium of a particular set of fibres, which form part of the nervous system, and are classed, therefore, among the nerves. The principal filaments of this class of nerves compose what is called the *sympathetic nerve*, from its being regarded as the medium of extensive

* As the functions of plants are sufficiently simple to admit of being conducted without the aid of muscular power, still less do they require the assistance of the nervous energy; both of which properties are the peculiar attributes of animal vitality. We accordingly find no traces either of nervous or of muscular fibres in any of the vegetable structures.